Steve M. Mihalchick
Administrative Law Judge
Minnesota Office of Administrative Hearings
PO Box 64620
St. Paul, Minnesota 55164-0620

Subject: Adequacy and Impact – DOE Final EIS for the Mesaba Energy Project (DOE/EIS-0382); MN PUC Docket # E6472/GS-06-668

Dear Sir:

I am requesting the following comments be included in the record regarding the adequacy and impact of the Final EIS for the proposed IGCC demonstration plant to be sited in Taconite Minnesota.

Rather than providing authentic oversight, the DOE has institutionally supported the Mesaba Energy Project. To facilitate their organizational goals, the DOE has become a partner of Excelsior Energy. There is no basis for the assumption that demonstration of IGCC would grant the single most important advantage the United States could obtain in global competition for new markets.

5.5 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The Proposed Action would support the DOE objective of demonstrating and promoting innovative coal power technologies that can provide the United States with clean, reliable, and affordable energy using abundant domestic sources of coal. The long-term benefit of the proposed project would be to demonstrate advanced power generation systems using IGCC technology at a sufficiently large scale to allow industries and utilities to assess the technology's potential for commercial application. The ability to show prospective domestic and overseas customers an operating facility rather than a conceptual design or engineering prototype would provide a persuasive inducement for them to purchase this advanced coal power technology. Successful demonstration would enhance prospects of exporting the technology to other nations and may provide the single most important advantage that the United States could obtain in the global competition for new markets.

Mesaba Energy Project Summary

The CCPI only allows for **Federal co-funding** of proposed **private sector/industry** projects **for which an application has been prepared, submitted, selected, and awarded in response to a formal funding opportunity announcement issued by DOE.** DOE issued the CCPI **Round 2 funding opportunity announcement in 2004. Thirteen applications for co-funding of proposed industry project demonstrations from across the nation were received and evaluated in response to the CCPI Round 2 funding opportunity announcement. These applications represented diverse technologies and proposed the use of a variety of coals**

consistent with the requirements embodied in the funding opportunity announcement. Pursuant to Federal regulations, the choices available to DOE were limited to those applications submitted in response to the funding opportunity announcement. Two of the 13 applications were for co-funding of proposed archetypal IGCC projects. In all, four of the 13 applications were selected, including both proposed archetypal IGCC projects, one of which was the Mesaba Energy Project (NETL, 2006a). The two archetypal IGCC projects that were selected for co-funding involved the demonstration of different gasifier types, which is important in achieving a diversity of technology approaches and methods in the CCPI. They also involved different coal types, operating environments, and environmental considerations, all of which enhance the potential for widespread commercialization of IGCC technology in a competitive marketplace. The Mesaba Energy Project was selected because of the opportunity to demonstrate the specific technology proposed—the Conoco-Phillips E-Gas™ gasification technology—in a fully integrated and quintessential large commercial utility-scale IGCC setting. No other applicants proposed this specific IGCC technology. Other projects that proposed to demonstrate other technologies are not alternatives to the proposed project for NEPA purposes.

Major Changes to Final EIS Site West Range

Ron Gustafson expressed concern in Comment 53-09 in the DEIS regarding Option 1A of the DEIS. Option 1A, rail alignment, proposed additional rail loop to serve the Mesaba Energy Project will pass within 400 ft of one residence and within 1000 ft. of 3 residences. The FEIS did not address this comment. The FEIS cut and pasted a previous response regarding impacts in the city of Taconite. It did not address impacts on Diamond Lake Road and residents living within 400 feet of the unloading operation.

In the FEIS the preferred railroad location unloading point is now located ½ mile closer to residences on Diamond Lake Road. This will increase noise disturbances and fugitive dust from the coal cars. While it seems the governing agencies are concerned about the wetlands, what about the health and well-being of the people in this area? The closest resident will be 470 feet from the coal unloading point. An acceptable alternative needs to be determined that will lessen the impact on these residences. The final preferred railroad location is more impacting on residences.

Rail Alignment-Alternative 3B (Table S-7 Changes Between Draft and Final EIS)

In response to agency comments on the DEIS to avoid and minimize impacts on wetlands, a new rail alignment, Alternative 3B, is now the preferred alternative. New alignment results in the following changes:

- Routes rail loop around hill located to the northeast of the plant footprint avoiding substantial wetland acreage;
- Adjustment in rail elevation affects base elevation of plant footprint by several feet resulting in reduced grading requirements (only the active coal yard would incur changes in elevation, not the entire footprint); and
- Relocation of coal unloading point (nearly 2,000 feet closer to Diamond Lake Road) required by new rail loop would affect the duration of rail cars being located and moved in the vicinity of Diamond Lake Road residences.

Table S-8. Summary Comparisons of Impacts (Phases I & II)

Rail Alt. 3B within 0.5 mi of 16 residences (closest within 470 ft).

Both adequacy and impact need to be addressed regarding the Access Road 3 Option in the Final EIS. CR 7 has a 7 ton weight restriction during spring. In its current condition, materials cannot move to Access Road 3 during the weight restriction period. Will the undesirable by-products of IGCC be stored on site during this period? This impact needs to be addressed with a detailed action plan.

Access Road 3-West Range (Table S-7 Changes Between Final and Draft EIS)

- **Access Road 3 within 0.5 mi of 2 residences (both within 1,250 ft).**

3.15.2.1 Load Limits

Minnesota roadways are generally categorized into two specific groups. One group consists of all state trunk highways, which includes all state, U.S., and interstate highways, and certain other routes designated by the commissioner of transportation. These are commonly referred to as 10-ton routes. All routes other than state trunk highways and designated routes are commonly referred to as 9-ton routes. Minnesota statutes provide for maximum loads, which may be carried upon any wheel, any single axle, any group of consecutive axles, and the gross vehicle weight (MN State Patrol, 2006). In the spring of each year, county and town roads not paved with concrete are restricted to 10,000 pounds on single axles and 5/9 of the weight restrictions prescribed for two or more consecutive axles, unless otherwise posted. The starting and ending dates for these restrictions is determined by the commissioner of transportation for each of the frost zones in the state. Any road may be restricted at any other time by the appropriate jurisdiction when conditions threaten damage or deterioration. Bridges with rated capacities less than the maximums permitted on Minnesota highways will have restricted weights posted and all drivers must observe these restrictions.

3.15.2.3 West Range Site and Corridors

Roadways

The West Range Site is bordered on the west by CR 7. Though not officially designated as a state byway, CR 7 is locally referred to as Scenic Highway 7. CR 7 is a winding two-lane roadway stretching from Taconite to Bigfork. CR 7 is a 9-ton roadway except during spring load restrictions when it is posted at 7-tons/axle. The posted speed limit on CR 7 is 55 miles per hour. CR 7 is designated as a County State Aid Highway and receives funds from the state mainly for construction and maintenance (Itasca County, 2003).

Another existing road corridor in the project area is the Cross-Range Heavy Haul Road, which is a gravel road in place for generations as a way to allow heavy or slow loads to be transported between mines across the Iron Range; however, because of numerous winding and high gradient topography, Excelsior has not pursued the use of this road any further. In the West Range project area, the Cross-Range Heavy Haul Road **(named Diamond Lake Road)** also serves as access to a cluster of homes in the Big Diamond Lake/Dunning Lake area.

Corporate values of Excelsior Energy

The FEIS Summary S-5 states that Excelsior Energy was founded in Minnesota because of the firm's leadership team with the electric power industry in Minnesota. The FEIS does not adequately assess the corporate values and leadership of Excelsior Energy.

As an example:

Minnesota Power is the former employer of Tom Micheletti and an elite company celebrating their 100th anniversary in business. Newspaper articles were submitted as testimony at the PUC hearings in St. Paul, Minnesota. In the Herald Review dated December 13, 2006, Tom Micheletti is quoted as saying "They're lying." in reference to comments made by Minnesota Power Executive Vice President David McMillan. Tom Micheletti has referred to his former employer, Minnesota Power as anti Range Power in the media.

Excelsior Energy has not made contact with any of the impacted receptors.

Mesaba Energy Project Summary

The DOE Proposed Action to co-fund the Mesaba Energy Project as an application selected under CCPI Round 2 constitutes a decision only to select a specific technology for commercial-scale operational demonstration. DOE has not participated in the identification or selection of alternative sites or alignments for the Mesaba Energy Project. Excelsior Energy was founded in the State of Minnesota because of the experience of the firm's leadership team with the electric power industry in Minnesota. Therefore, the initial consideration of potential sites by the project proponent (Excelsior) was limited to the State of Minnesota.

Conflicting Information in the FEIS – Diamond Lake Road

3.15.2.3 West Range Site and Corridors identifies Diamond Lake Road as the Cross Range Heavy Haul Road. 3.18.2.1 identifies Diamond Lake Road as a roadway that at times requires a four-wheel drive vehicle to navigate. Currently, this road is being utilized to move the heavy construction equipment working on the rail line to serve ESSAR Steel. In its present condition it cannot sustain further heavy equipment usage. The traffic impacts and noise impacts have not been adequately addressed. The statements in the FEIS lead the reader to assume there is little to no traffic occurring in this location. We aren't even identified as noise receptors.

Another existing road corridor in the project area is the Cross-Range Heavy Haul Road, which is a gravel road in place for generations as a way to allow heavy or slow loads to be transported between mines across the Iron Range; however, because of numerous winding and high gradient topography, Excelsior has not pursued the use of this road any further. In the West Range project area, the Cross-Range Heavy Haul Road **(named Diamond Lake Road)** also serves as access to a cluster of homes in the Big Diamond Lake/Dunning Lake area.

Receptor 2, Residence Big Diamond Lake

Receptor 2 was located along a cluster of residential and summer homes along the northern edge of Big Diamond Lake. These homes are situated along an undeveloped roadway with access off of CR 7 and proceeding east north of Big Diamond Lake. The roadway itself

(Diamond Lake Road) consists of dirt and red clay and is, at times, difficult to navigate without a four-wheel drive vehicle.

Noise and Property Values – West Range Site

The west range location results in greater noise impacts due to the closer proximity of residences. As well as noise impacts, the property values of the closest residences will likely be impacted. The West Range site is not an appropriate location for this plant. The East Range site has no residential properties within the preferred rail alignment.

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Aesthetics, Land Use, and Socioeconomics – The power plant footprint at the West Range Site is within 1 mile of approximately 50 residences; no residences are located within 1 mile of the footprint at the East Range Site. The proponent's preferred rail alignment would be closer to more residential properties (approximately 16 within 0.5 mile) at the West Range Site than the proponent's preferred rail alignment for the East Range Site (none within 0.5 mile). These conditions could potentially affect property values for the closest residences.

Noise – The closer proximity of residences to the power plant footprint and rail alignment at the West Range Site would result in greater noise impacts from plant activities.

Carbon Capture

The FEIS Summary Conclusion confirms that carbon capture and sequestration is not considered feasible for the Mesaba Energy Project at this time. Therefore, the impact of the 214 million tons of CO2 generated over the 20 year commercial life of the generating plant needs to be taken into consideration.

Response to Comment 4-01 by Ron Gustafson

As stated in response to Comment 1-02, Excelsior submitted to the PUC a "Plan for Carbon Capture and Sequestration" for the Mesaba Energy Project, which is included in Appendix A1 (Volume 2) of the Final EIS. The plan provides information about the potential costs and economic effects of CCS scenarios that could be implemented for the project to the extent that these costs can be determined in the absence of regulations or incentives aimed at controlling CO2 emissions. In Appendix A2 (Volume 2), DOE states that, in the absence of such regulations or incentives, the "...imposition of CCS on the project will effectively make the cost of electricity non-competitive" and, therefore, CCS "... is not considered feasible for the Mesaba Energy Project at this time" (i.e., for the CCPI demonstration). However, Appendix A2 also states that "CCS was not a requirement of the [CCPI] Round 2 announcement, was not proposed in Excelsior's application submitted in response to the announcement, nor is it included within the project as negotiated and awarded in the DOE Cooperative Agreement." With respect to the potential economic effects of CCS on the Mesaba Energy Project, DOE also concludes in Appendix A2: "Without an order from the PUC that incorporates the costs associated with CCS within the power purchase agreement, the Mesaba Energy Project would not be economically viable.

Emergency Response

The FEIS failed to adequately address my comments on what additional equipment would be required. As well, the impact of the additional costs on local taxpayers needs to be reviewed and made public. This is of particular concern, since Excelsior Energy successfully lobbied the Minnesota Legislature for an exclusive exemption to the Energy Plant Personal Property Tax.

4.13.3.2 Impacts of Operation

Emergency Response

The operation of the proposed generating station would increase demand for emergency response in the City of Taconite. The city's volunteer fire department may need to expand from the current staff of 14 to a staff of approximately 20, which is comparable to the number of fire and emergency personnel in the City of Cohasset. The Cohasset fire and emergency response staff of 21 has served Minnesota Power's Clay Boswell plant successfully for over 25 years with a response requirement of three or four visits a year (Excelsior, 2006b). **The City of Cohasset had a population of 2,481 in 2000 compared to a population of 2,087 for Bovey, Coleraine, and Taconite combined.** Also, to comply with OSHA Standard 1910.120, the Mesaba Generating Station would be expected to provide and train its own first responders and first aid specialists to respond until local emergency personnel arrive. The Itasca County Director of Emergency Management (Itasca County Sheriff) would have principal responsibility for oversight of response to a major emergency involving the Mesaba Generating Station at the West Range Site. Locally, the incidents and injuries during operation of the generating station, as predicted in Section 4.17, are not expected to increase the demand on medical services substantially beyond available capacities of facilities in Grand Rapids and Hibbing.

Table S-8. Summary Comparison of Impacts (Phases I & II) – PageS-55

Power Plant Site: Demands by the generating station may require staff at local fire and emergency response agencies to increase by 30 to 50%. Large numbers of construction workers (>1,500 during 3 years of peak construction) may affect capacities of local law enforcement agencies. Security requirements for the generating station may affect capacities of local law enforcement agencies.

Commenter 4 – Ron Gustafson-Comment Response Document
Comment 4-04 – Response

The anticipated need for an increase in Taconite's volunteer fire department staff to 20 individuals was based on a comparison to the City of Cohasset, where the Minnesota Power Clay Boswell plant is located. The emergency response staff of that city has adequately responded to the levels of incidents experienced at the Boswell plant, which provides a reasonable basis for comparison to the Mesaba plant. The population in the City of Cohasset is approximately 2,587, while the combined population of Taconite, Bovey, and Coleraine is approximately 2,181. It is expected that the costs associated with additional personnel, training, and equipment for local and regional emergency response agencies would be the responsibilities of the respective jurisdictions and their taxpayers.

Table 5.3-1. Mitigation Measures for the Mesaba Energy Project

These impacts require extensive planning and coordination. The response in the FEIS is not adequate. Due to the questionable corporate values of Excelsior Energy an objective 3rd party should have oversight of the mitigation measures.

Construction:

To prevent unnecessary traffic congestion and increased road hazards, Excelsior would coordinate with local authorities and implement transportation measures, especially during the movement of oversized loads, construction equipment and materials.

- Where traffic disruptions would be necessary, Excelsior would coordinate with local authorities and implement detour plans, warning signs, and traffic diversion equipment to improve traffic flow and road safety.
- Excelsior would implement a noise mitigation plan, which includes the contact of affected receptors during steam blowing and major construction events

Operation:

- Excelsior would implement road improvements at the intersection of CR 7 and US 169 to minimize traffic congestion and road hazards currently associated with this intersection. Improvements include adding turning and acceleration lanes.

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